Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy											Date: February 2015	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0303138N *I Consolidated Afloat Network Ent Services(CANES)*							
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
Total Program Element	115.289	23.965	22.773	21.677	-	21.677	22.854	22.352	22.558	23.016	319.363	593.847
0725: *Communication Automation*	1.213	0.972	3.009	-	-	-	-	-	-	-	-	5.194
9C87: *CANES Integration*	114.076	22.993	19.764	21.677	-	21.677	22.854	22.352	22.558	23.016	319.363	588.653

Note

Automated Digital Network System (ADNS) - FY14-15 funding resides in PE 0303138N. FY16-20 funding was realigned into PE 0204163N for Major Automated Information System (MAIS) transparency compliance.

A. Mission Description and Budget Item Justification

Consolidated Afloat Networks & Enterprise Services (CANES) is the Navy's only Program of Record (POR) to replace existing afloat networks and provide the necessary infrastructure for applications, systems, and services required for the Navy to dominate the Cyber Warfare domain. CANES is the technical and infrastructure consolidation of existing, separately managed afloat networks including Integrated Shipboard Network Systems (ISNS), Combined Enterprise Regional Information Exchange System - Maritime (CENTRIXS-M), Sensitive Compartmented Information (SCI) Networks, and Submarine Local Area Network (SubLAN). These legacy afloat network designs are currently End of Life and CANES will replace these unaffordable and obsolete networks.

The fundamental goal of CANES is to bring Infrastructure as a Service (IaaS) and Platform as a Service (PaaS), within which current and future iterations of Navy Tactical Network computing and storage capabilities will reside. CANES will provide complete infrastructure inclusive of hardware, software, processing, storage, and end user devices for Unclassified, Coalition, Secret and SCI for all basic network services (email, web, chat, collaboration) to a wide variety of Navy surface combatants, submarines, Maritime Operations Centers, Regional Network Operations and Security Centers (RNOSC) and Aircraft. In addition, hosted applications and systems inclusive of Command and Control, Intelligence, Surveillance and Reconnaissance, Information Operations, Logistics and Business domains require the CANES infrastructure to operate in the tactical environment. Integrating these applications and systems is accomplished through Application Integration (AI), the engineering process used to evaluate and validate compatibility between CANES and the Navy-validated applications, systems and services that will utilize the CANES infrastructure and services. Specific programs, such as Distributed Common Ground System - Navy (DCGS-N), Global Command and Control System - Maritime (GCCS-M), Naval Tactical Command Support System (NTCSS), and Undersea Warfare Decision Support System (USW-DSS), are dependent on the CANES Common Computing Environment (CCE) to field, host, and sustain their capability because they no longer provide their own hardware. CANES requires that Automated Digital Network System (ADNS) field prior to or concurrently with CANES due to the architectural reliance between the two programs.

CANES will develop updates on a rolling four year hardware baseline and a two year software baseline. CANES is based on the overarching concept of reducing the number of afloat network baselines and providing enhanced efficiency through a single engineering focus on integrated technical solutions. This will allow for streamlined acquisition, contracting test events, and significant lifecycle efficiencies through consolidation of multiple current configuration management baselines, logistics, and training efforts into a unified support structure. Platform Sets define phases of CANES system development efforts. Each platform set consists of different ship class design baselines.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy	Date: February 2015
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303138N *I Consolidated Afloat Network Ent Services(CANES)*

In FY 2016, CANES RDT&E investment will support completion of Technical Insertion (TI) software baseline development and initiate development for TI 2 hardware and software baseline including E2C laboratory test efforts. Perform systems engineering efforts to complete functional baselines and updates to technical data packages. Initiate Development Testing (DT) in support of submarine testing.

The Communications Automation Program - This project is a continuing program that provides for automation and communications upgrades for Fleet tactical users. It includes Automated Digital Network System (ADNS) and High Frequency Internet Protocol/Sub Network Relay.

ADNS is the method by which Tactical Navy units transfer Internet Protocol (IP) data to Navy and Department of Defense communities on the Global Information Grid (GIG). ADNS is the gateway to technical Wide Area Network (WAN) afloat for Internet Protocol network operations, supporting information dissemination and external connectivity. ADNS allows services and applications to interconnect to the Defense Information Systems Network (DISN) ashore via multiple Radio Frequency (RF) resources and pier connectivity.

In FY 2016-2020 ADNS funding resides in PE 0204163N (Fleet Tactical Development).

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	24.476	22.780	25.968	-	25.968
Current President's Budget	23.965	22.773	21.677	-	21.677
Total Adjustments	-0.511	-0.007	-4.291	-	-4.291
• Congressional General Reductions	-	-0.007			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.511	-			
• Program Adjustments	-	-	-	-	-
• Rate/Misc Adjustments	-	-	-4.291	-	-4.291

Change Summary Explanation

The FY 2016 funding request was reduced by $0.7 million to account for the availability of prior year execution balances.

Technical: N/A

Funding:
N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy	Date: February 2015
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303138N *I Consolidated Afloat Network Ent Services(CANES)*

Schedule:
Impacts resulting from operational ship availability timelines for the CANES Initial Operational Test and Evaluation (IOT&E) and Follow-On Test and Evaluation (FOT&E) test platforms caused the Unit Level DT1, Unit Level DT2, IOT&E and Force Level DT and Force Level FOT&E test events to be re-phased. The delays to the ship availability timeline also caused IOC to be re-phased based on IOC definition in the program's Capability Development Document (CDD) for IOC to be declared once first installation is completed. CANES development of Platform Sets 2, 3 & 4 has been re-phased to include development in FY 2014 to align with ship installation schedules of platforms added to the CANES Target Inventory Objective. CANES Limited Deployment re-phased to reflect Limited Deployment authorization provided at Milestone C.

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	Project (Number/Name) 0725 / *Communication Automation*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
0725: *Communication Automation*	1.213	0.972	3.009	-	-	-	-	-	-	-	-	5.194
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

Automated Digital Network System (ADNS) - FY14-15 funding resides in PE 0303138N. FY16-20 funding was realigned into PE 0204163N for Major Automated Information System (MAIS) transparency compliance.

A. Mission Description and Budget Item Justification

This project unit is a continuing program that provides for automation and communications upgrades for Fleet tactical users.

Automated Digital Network System (ADNS) provides routing, switching, baseband, configuration and monitoring capabilities for interconnecting naval, coalition and joint enclaves worldwide. ADNS utilizes off the shelf equipment and network protocols as specified by the Joint Technical Architecture. ADNS Increment (INC) II provides capabilities of network to Satellite Communications (SATCOM), load balancing, radio frequency restoral, Quality of Service (QoS) to include application prioritization, traffic management, compression and enhancements designed to maximize use of "effective" available bandwidth for surface, shore, and airborne platforms. ADNS INC III combines all Navy Tactical Voice, Secure Communications Interoperability Protocol (SCIP) Inter-Working Function, Video, and data requirements into a converged IP data stream. ADNS INC III supports higher bandwidth satellites, providing up to 25 mega bytes per second (Mbps) of throughput on Unit Level ships and up to 50 Mbps on Force Level ships. INC III architecture also incorporates an IPv4/IPv6 dual stack and Cipher-Text (CT) security architecture to align to the Global Information Grid (GIG) in order to mesh Navy Tactical surface, subsurface, and airborne platforms into a single IP environments with gateway functions to coalition and joint networks, in addition to greater security utilizing the High Assurance Internet Protocol Encryptor (HAIPE) devices. ADNS will serve as the Navy tactical interface for IP Networking for the JALN-M system. ADNS will investigate emerging technologies to integrate with additional Department of Defense C4I Programs to improve interstrike group networking and extend the network to the tactical edge.

In FY 2016-2020, ADNS funding resides in PE 0204163N (Fleet Tactical Development).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Automated Digital Network System (ADNS)	0.972	3.009	-	-	-
Articles:	-	-	-	-	-
FY 2014 Accomplishments:					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	**Project (Number/Name)** 0725 / *Communication Automation*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Continued testing and interfaces with Enterprise Network Management System (ENMS), IPv6 transition, and final phase out of serial links. Integrated Super High Frequency (SHF) split Internet Protocol(IP). Interfaced testing for emerging Line-of-Sight (LOS) links. ***FY 2015 Plans:*** Continue testing and interfaces with ENMS, IPv6 transition, and integration of SHF. Continue the Interface Design Development (IDD) and integration with network applications, develop LOS link, Defense Information Systems Network (DISN) integration and development of Cipher-Text (CT) Piers. Investigate and recommend platform network devices, network design support to include integration with Wide Area Network (WAN) and Joint Aerial Layer Network - Maritime (JALN-M) system. ***FY 2016 Base Plans:*** In FY 2016-2020, ADNS funding resides in PE 0204163N (Fleet Tactical Development). ***FY 2016 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	0.972	3.009	-	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• OPN/2915: *CANES (ADNS Only)*	52.098	56.626	-	-	-	-	-	-	-	-	160.060

Remarks

D. Acquisition Strategy

Automated Digital Network System (ADNS): Evolutionary acquisition approach with overlapping development and implementation phases for defined INC I, II, and III baselines. INC I , II , and III will use competitively awarded contracts to implement changes consistent with acquisition initiatives. ADNS leverages Commercial-Off-The-Shelf (COTS) and Government Off-the-Shelf (GOTS) products while capitalizing on acquisition reform initiatives to achieve material savings in the logistics, installation, integration and training areas. Where feasible, differing types of advantageous contract vehicles will be used to provide flexibility, decrease contract administrative costs, and encourage acquisition streamlining through the use of COTS/GOTS products.

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	**Project (Number/Name)** 0725 / *Communication Automation*

E. Performance Metrics

ADNS - Included in the ADNS program goals are the improvements to bandwidth throughput, connectivity to multiple Radio Frequency (RF) paths, greater security, and system capability delivered within a smaller form factor. The ADNS program will, at a minimum, provide bandwidth throughput enhancements resulting in an increase from 2 megabytes per
second (Mbps) to 25 Mbps. ADNS will also provide the ability to transport data across multiple paths simultaneously vice the current limitations of single or secondary paths. ADNS will provide greater security posture by encrypting each enclave, increase performance of the routing and transport architecture while reducing physical footprint and cost, and securing the core via Cipher-Text.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	Project (Number/Name) 0725 / *Communication Automation*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering-ADNS	WR	SSC : PAC	0.220	0.233	Nov 2013	2.483	Dec 2014	-		-		-	-	2.936	-
Integration and Test-ADNS	WR	SSC : PAC	0.767	0.392	Dec 2013	0.150	Feb 2015	-		-		-	-	1.309	-
Systems Engineering-ADNS	WR	SSC : LANT	0.000	0.271	Aug 2014	0.211	Nov 2014	-		-		-	-	0.482	-
		Subtotal	0.987	0.896		2.844		-		-		-	-	4.727	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Dev Support-ADNS	WR	SSC : LANT	0.000	-		0.015	Dec 2014	-		-		-	-	0.015	-
		Subtotal	0.000	-		0.015		-		-		-	-	0.015	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation-ADNS	WR	COMOPTEVFOR : Norfolk, VA	0.046	-		-		-		-		-	-	0.046	-
		Subtotal	0.046	-		-		-		-		-	-	0.046	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support-ADNS	C/CPFF	Systems Research & Application : San Diego, CA	0.071	0.076	Aug 2014	0.150	Jul 2015	-		-		-	-	0.297	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	Project (Number/Name) 0725 / *Communication Automation*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support-ADNS	C/CPFF	Science Applications International Corporation : San Diego, CA	0.109	-		-		-		-		-	-	0.109	-
		Subtotal	0.180	0.076		0.150		-		-		-	-	0.406	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.213	0.972		3.009		-		-		-	-	5.194	-

Remarks

Automated Digital Network System (ADNS) - Prior to FY13 funding resides in PE 0204163N. FY13-15 funding resides in PE 0303138N. FY16-20 funding was realigned back into PE 0204163N for Major Automated Information System (MAIS) transparency compliance.

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	**Project (Number/Name)** 0725 / *Communication Automation*

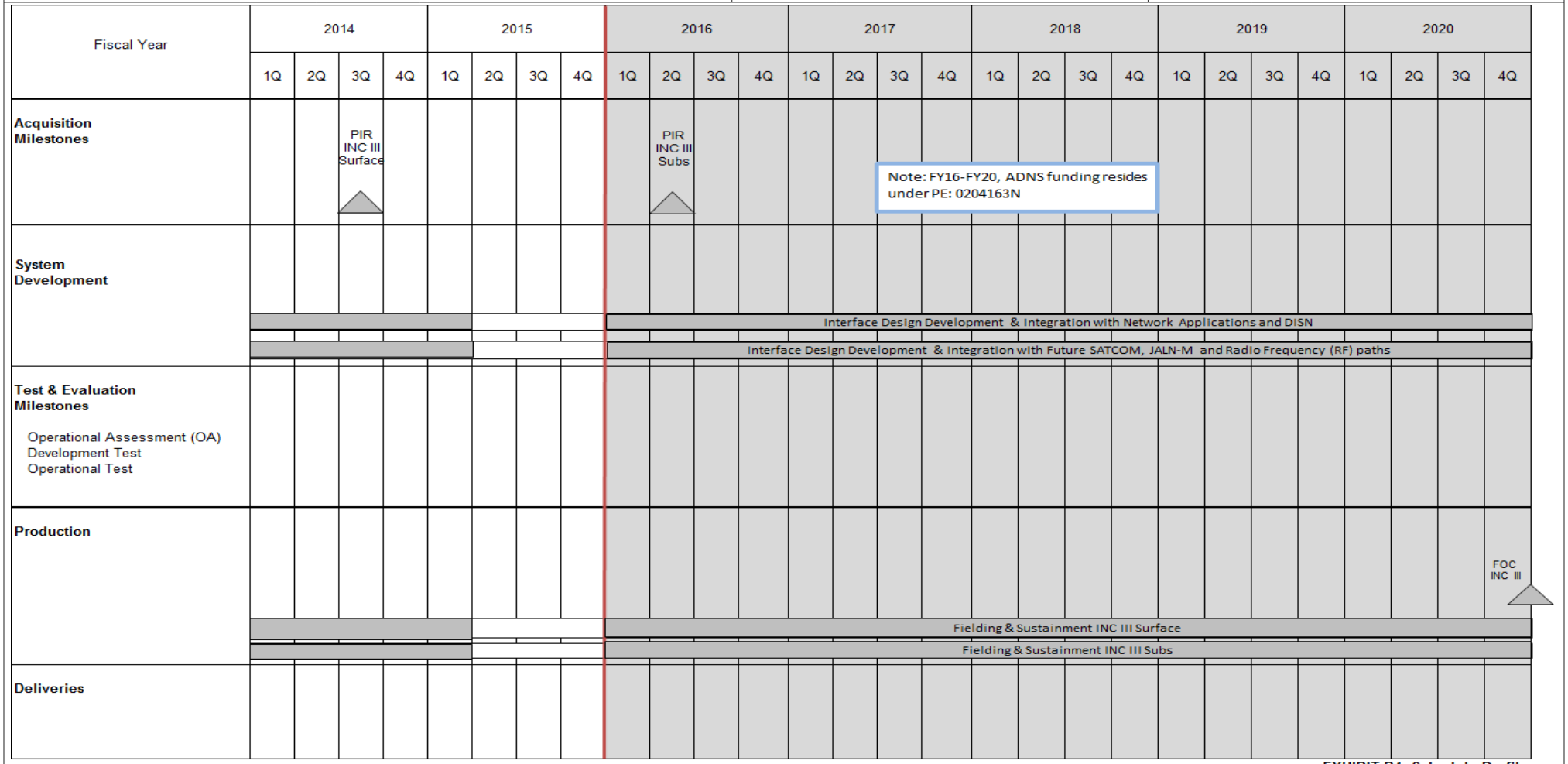

EXHIBIT R4, Schedule Profile

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	**Project (Number/Name)** 0725 / *Communication Automation*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Fiscal Year				
Acquisition Milestones: ADNS: INCREMENT III_Surface Post Implementation Review	3	2014	3	2014
Acquisition Milestones: ADNS: INCREMENT III_Subs Post Implementation Review	2	2016	2	2016
System Development: ADNS: INCREMENT III_Interface Design Development and Integration with Network Applications and Defense Information Systems Network (DISN)	1	2014	4	2020
System Development: ADNS: INCREMENT III_Interface Design Development and Integration with SATCOM, Joint Aerial Layer Network-Maritime (JALN-M) and Radio Frequency (RF) paths	1	2014	4	2020
Production: ADNS: INCREMENT III_Fielding and Sustainment INC III Surface	1	2014	4	2020
Production: ADNS: INCREMENT III_Fielding and Sustainment INC III Submarines	1	2014	4	2020
Production: ADNS: INCREMENT III_Full Operational Capability	4	2020	4	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	Project (Number/Name) 9C87 / *CANES Integration*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
9C87: *CANES Integration*	114.076	22.993	19.764	21.677	-	21.677	22.854	22.352	22.558	23.016	319.363	588.653
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Consolidated Afloat Networks & Enterprise Services (CANES) is the Navy's only Program of Record (POR) to replace existing afloat networks and provide the necessary infrastructure for applications, systems, and services required for the Navy to dominate the Cyber Warfare domain. CANES is the technical and infrastructure consolidation of existing, separately managed afloat networks including Integrated Shipboard Network Systems (ISNS), Combined Enterprise Regional Information Exchange System - Maritime (CENTRIXS-M), Sensitive Compartmented Information (SCI) Networks, and Submarine Local Area Network (SubLAN). These legacy afloat network designs are currently End of Life and CANES will replace these unaffordable and obsolete networks.

The fundamental goal of CANES is to bring Infrastructure as a Service (IaaS) and Platform as a Service (PaaS), within which current and future iterations of Navy Tactical Network computing and storage capabilities will reside. CANES will provide complete infrastructure, inclusive of hardware, software, processing, storage, and end user devices for Unclassified, Coalition, Secret and SCI for all basic network services to a wide variety of Navy surface combatants, submarines, Maritime Operations Centers, Regional Network Operations and Security Centers (RNOSC) and Aircraft. In addition, hosted applications and systems inclusive of Command and Control, Intelligence, Surveillance and Reconnaissance, Information Operations, Logistics and Business domains require the CANES infrastructure to operate in the tactical environment. Integrating these applications and systems is accomplished through Application Integration (AI), the engineering process used to evaluate and validate compatibility between CANES and the Navy-validated applications, systems and services that will utilize the CANES infrastructure and services. Specific programs, such as Distributed Common Ground System - Navy (DCGS-N), Global Command and Control System - Maritime (GCCS-M), Naval Tactical Command Support System (NTCSS), and Undersea Warfare Decision Support System (USW-DSS), are dependent on the CANES Common Computing Environment (CCE) to field, host, and sustain their capability because they no longer provide their own hardware. CANES requires that Automated Digital Network System (ADNS) field prior to or concurrently with CANES due to the architectural reliance between the two programs.

CANES will develop updates on a rolling four year hardware baseline and a two year software baseline. CANES is based on the overarching concept of reducing the number of afloat network baselines and providing enhanced efficiency through a single engineering focus on integrated technical solutions. This will allow for streamlined acquisition, contracting test events, and significant lifecycle efficiencies through consolidation of multiple current configuration management baselines, logistics, and training efforts into a unified support structure. Platform Sets define phases of CANES system development efforts. Each platform set consists of different ship class design baselines.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: CANES Integration	22.993	19.764	21.677	-	21.677
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	**Project (Number/Name)** 9C87 / *CANES Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
FY 2014 Accomplishments: Completed DT1 and DT2 on unit level platform. Initiated development for TI software baseline and Platform Set 3 & 4 baseline development. Performed systems engineering efforts to complete functional baselines and performed updates to technical data packages. Continued testing events in E2C laboratory on Platform Sets 2, 3 & 4 and purchased necessary lab assets and test articles in support of testing events. Peformed IOT&E on unit level platform. Achieved IOC upon completion of first CANES installation. ***FY 2015 Plans:*** Continue development of TI software baseline. Complete Platform Set 3 & 4 baseline development. Perform systems engineering efforts to complete functional baselines and updates to technical data packages. Continue testing events at E2C laboratory for TI software baseline and Platform Set 3 & 4. Perform DT and FOT&E in support of force level testing and perform DT Assist for TI software development. Achieve Full Deployment Decision(FDD). ***FY 2016 Base Plans:*** Complete TI software baseline development and initiate development for TI 2 hardware and software baseline including E2C laboratory test efforts. Perform systems engineering efforts to complete functional baselines and updates to technical data packages. Initiate Development Testing (DT) in support of submarine testing. ***FY 2016 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	22.993	19.764	21.677	-	21.677

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• OPN/2915: *CANES*	273.242	279.363	278.991	-	278.991	279.272	361.129	338.817	340.636	4,602.229	7,089.718
• OPN/2925: *CANES Intell*	55.262	61.215	28.695	-	28.695	51.478	48.333	47.963	48.926	749.200	1,228.708

Remarks

D. Acquisition Strategy

CANES is an ACAT IAM MAIS program. The program office is employing a multiple-phase, multiple-award down-select contract strategy to reduce program risks and maintain competition in both design development and production during contract performance. Two competitive contracts were awarded to design, develop, and deliver all hardware and the associated operating system, virtualization and other commercial software needed to deliver a functional network. The Limited Deployment (LD)

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	**Project (Number/Name)** 9C87 / *CANES Integration*

contract was awarded to Northrop Grumman (NG) in 2QFY12. Milestone C was achieved in 1QFY13. In 4QFY14, a separate full and open indefinite delivery indefinite quantity (IDIQ) multiple award contract (MAC) production contract was awarded to support future production.

E. Performance Metrics

Early RDT&E investment and sustainment of dual design contractors through the development phase reduced Total Ownership Cost (TOC) from Milestone B to Milestone C. Cost avoidance throughout the life of the program is based on 1) reducing the number of networks through the use of mature, certified, cross domain technologies; 2) reducing the infrastructure footprint and associated costs for hardware afloat; and 3) providing increased capability to meet current and projected war fighter requirements.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	**Project (Number/Name)** 9C87 / *CANES Integration*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	C/CPFF	Lockheed Martin : San Diego, CA	22.329	-		-		-		-		-	-	22.329	22.329
Primary Hardware Development	C/CPFF	Northrop Grumman : Herndon, VA	26.867	-		-		-		-		-	-	26.867	26.957
Primary Hardware Development	WR	SPAWAR Systems Center : San Diego, CA and Charleston, SC	16.561	10.687	Nov 2013	10.960	Nov 2014	11.682	Nov 2015	-		11.682	192.514	242.404	209.438
Primary Software Development	WR	SPAWAR Systems Center : San Diego, CA and Charleston, SC	10.468	4.785	Nov 2013	3.012	Nov 2014	3.418	Nov 2015	-		3.418	52.439	74.122	48.574
Systems Engineering	WR	SPAWAR Systems Center : San Diego, CA and Charleston, SC	18.091	4.539	Nov 2013	2.608	Nov 2014	2.962	Nov 2015	-		2.962	45.743	73.943	50.798
Systems Engineering	MIPR	US ARMY CECOM (MITRE) : San Diego, CA	2.047	0.151	Sep 2014	0.326	Feb 2015	0.370	Nov 2015	-		0.370	5.722	8.616	19.934
Systems Engineering	C/CPFF	BAH : San Diego, CA	0.690	-		-		-		-		-	-	0.690	0.690
Primary Hardware Development	WR	NUWC : Newport, RI	2.923	-		-		-		-		-	-	2.923	5.120
Primary Software Development	C/CPFF	NSMA : Washington DC	0.234	0.507	Aug 2014	-		-		-		-	0.378	1.119	-
Primary Software Development	WR	NAWCAD : Patuxent River, MD	0.000	0.050	Apr 2014	-		-		-		-	0.050	0.100	-
		Subtotal	100.210	20.719		16.906		18.432		-		18.432	296.846	453.113	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	Project (Number/Name) 9C87 / *CANES Integration*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Studies Delete& Design	MIPR	Washington HQ Services : Washington DC	0.650	-		-		-		-		-	-	0.650	0.650
Certification Authority	C/CPFF	TBD : San Diego	0.000	0.527	Sep 2014	0.626	Jan 2015	0.711	Dec 2015	-		0.711	10.987	12.851	-
		Subtotal	0.650	0.527		0.626		0.711		-		0.711	10.987	13.501	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation	MIPR	JITC : Fairfax, VA	1.118	-		0.229	Nov 2014	0.260	Nov 2015	-		0.260	4.015	5.622	4.673
Operational Test & Evaluation	WR	COMOPTEVFOR : Norfolk, VA and Washington, DC	1.015	0.345	Aug 2014	0.485	Jan 2015	0.550	Nov 2015	-		0.550	8.510	10.905	5.891
Development Test & Evaluation	C/BA	SPAWAR Systems Center : San Diego, CA	0.000	0.201	Aug 2014	0.226	Nov 2014	0.257	Nov 2015	-		0.257	3.967	4.651	-
Development Test & Evaluation	MIPR	DTIC : Ft Belvoir, VG	0.000	0.100	Aug 2014	-		-		-		-	-	0.100	-
		Subtotal	2.133	0.646		0.940		1.067		-		1.067	16.492	21.278	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	WR	SPAWAR Systems Center : San Diego, CA and Charleston, SC	2.742	0.268	Aug 2014	-		-		-		-	-	3.010	2.742

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	**Project (Number/Name)** 9C87 / *CANES Integration*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management & Acquisition Support	C/CPFF	Systems Research & Application : San Diego, CA	4.456	0.400	Dec 2013	0.794	Jul 2015	0.902	Dec 2015	-		0.902	13.945	20.497	14.326
Financial Management Support	C/CPFF	INDUS Technology : San Diego, CA	1.167	-		-		-		-		-	-	1.167	1.167
Cost Estimation and Analyses	C/CPFF	Booz Allen Hamilton : San Diego, CA	1.420	-		-		-		-		-	-	1.420	1.420
Logistics Support	C/CPFF	TCI : San Diego, CA	1.298	-		-		-		-		-	-	1.298	1.298
Program Management	C/CPFF	CSA : San Diego, CA	0.000	0.204	Feb 2014	0.498	Dec 2014	0.565	Dec 2015	-		0.565	8.732	9.999	-
Engineering	C/CPFF	SAIC : San Diego, CA	0.000	0.229	Jan 2014	-		-		-		-	-	0.229	-
		Subtotal	11.083	1.101		1.292		1.467		-		1.467	22.677	37.620	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	114.076	22.993		19.764		21.677		-		21.677	347.002	525.512	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	**Project (Number/Name)** 9C87 / *CANES Integration*

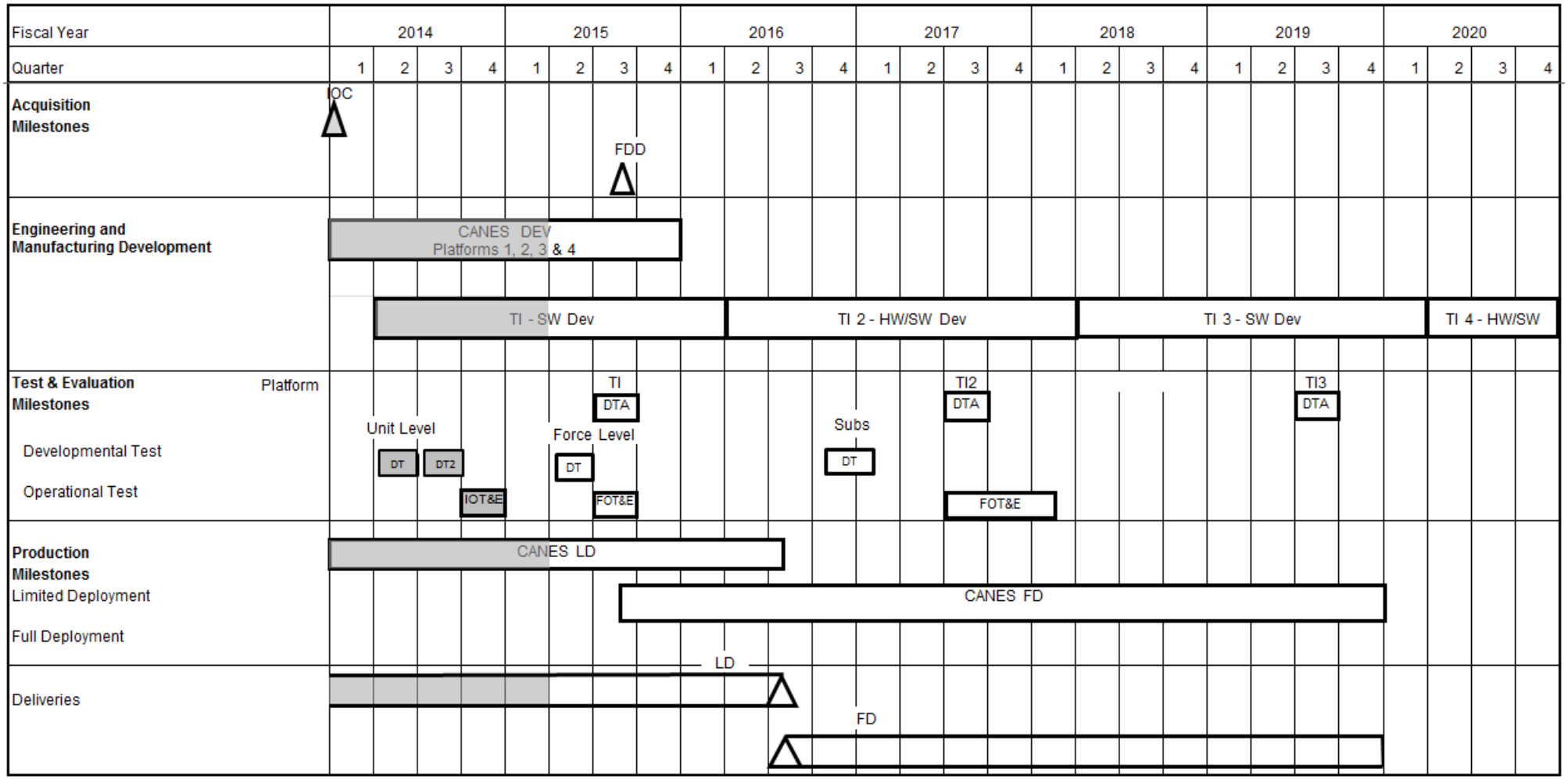

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	**Project (Number/Name)** 9C87 / *CANES Integration*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Fiscal Year				
Acquisition Milestone: Acquisition Milestone - Initial Operational Capability (IOC)	1	2014	1	2014
Acquisition Milestone: Acquisition Milestone - Full Deployment Decision Review (FDD)	3	2015	3	2015
Engineering and Manufacturing Development: Platform: Engineering and Manufacturing Development - Platform Set 1, 2, 3 & 4	1	2014	4	2015
Engineering and Manufacturing Development: Platform: Engineering and Manufacturing Development - Technical Insertion (TI) Software Development	2	2014	1	2016
Engineering and Manufacturing Development: Platform: Engineering and Manufacturing Development - TI 2 Hardware (HW)/SW Development	2	2016	1	2018
Engineering and Manufacturing Development: Platform: Engineering and Manufacturing Development - TI 3 SW Development	2	2018	1	2020
Engineering and Manufacturing Development: Platform: Engineering and Manufacturing Development - TI 4 Hardware (HW)/SW Development	2	2020	4	2020
Test & Evaluation Milestone: Development Test: Developmental Test - Force Level	2	2015	2	2015
Test & Evaluation Milestone: Development Test: Developmental Test - Sub	4	2016	1	2017
Test & Evaluation Milestone: Development Test: Development Test Assist - TI	3	2015	3	2015
Test & Evaluation Milestone: Development Test: Development Test Assist- TI2	3	2017	3	2017
Test & Evaluation Milestone: Development Test: Development Test Assist- TI3	3	2019	3	2019
Test & Evaluation Milestone: Development Test: Developmental Test - (1) - Unit Level	2	2014	2	2014
Test & Evaluation Milestone: Development Test: Developmental Test - (2) - Unit Level	3	2014	3	2014
Test & Evaluation Milestone: Operational Test: Operational Test - Initial Operational Test & Evaluation (IOT&E)	4	2014	4	2014
Test & Evaluation Milestone: Operational Test: Operational Test Force Level - FOT&E	3	2015	3	2015
Test & Evaluation Milestone: Operational Test: Operational Test - FOT&E Sub	3	2017	1	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0303138N / *Consolidated Afloat Network Ent Services(CANES)*	**Project (Number/Name)** 9C87 / *CANES Integration*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Production Milestone: Limited Deployment: Production Milestone - Limited Deployment (LD)	1	2014	3	2016
Production Milestone: Full Deployment: Production Milestone - Full Deployment (FD)	3	2015	4	2019
Deliveries: Deliveries - Limited Deployment (LD)	1	2014	3	2016
Deliveries: Deliveries - Full Deployment (FD)	3	2016	4	2019